

Appln. No.: 10/823,369
Amendment Dated October 9, 2006
Response to Office Action Dated August 11, 2006

BBM-142US1

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A screw and rod fixation assembly for fixing a screw and a rod comprising:

a screw including a screw head;

a fixing ~~means~~ mechanism including an inner passageway for receiving said screw therethrough for automatically and compressively fixing said screw from movement relative to said fixing ~~means~~ mechanism, said fixing ~~means~~ mechanism including an inner surface wall having a gripping portion for compressively gripping ~~portion for compressively gripping~~ said screw head and a non-gripping portion allowing passage of the screw head to said gripping portion;

~~a substantially annular ring including an edge portion extending about a centered axis, said edge portion having a frustoconical surface tapering outwardly toward said edge portion for engaging said screw head while allowing a portion of said screw to pass therethrough;~~

a rod ~~seat seating means~~ operatively engaged with said fixing means disposed inside the inner passageway of the fixing mechanism and having a U-shaped inner wall for seating a rod therein, said rod ~~seat seating means~~ including at least one flexible portion capable of being compressed against a rod seated within said rod ~~seat seating means~~, wherein said at least one flexible portion has a tapered outer surface end; and

locking means ~~for securing~~ disposed inside the inner passageway of the fixing mechanism and engaging the rod and rod ~~seat seating means~~, said locking means including a deflecting surface means for deflecting said at ~~least~~ least one flexible portion of said rod ~~seat seating means~~ against and around the rod as said locking means further engages said at least one flexible portion of said rod ~~seat seating means~~.

2. (Currently Amended) The screw and rod fixation assembly according to claim 1, wherein said fixing mechanism ~~means~~ includes a substantially tubular body.

3. (Original) The screw and rod fixation assembly according to claim 2, wherein said substantially tubular body further includes spaced, substantially parallel arms extending from said substantially tubular body.

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4. (Currently Amended) The screw and rod fixation assembly according to claim 1, wherein said gripping portion of said inner surface wall of said fixing mechanism ~~means~~ is expanded within an elastic range of said inner surface wall by said screw head.

5. (Currently Amended) The screw and rod fixation assembly according to claim 1, wherein a portion of said inner surface wall of said fixing mechanism ~~means~~ is threaded.

6. (Currently Amended) The screw and rod fixation assembly according to claim 1, wherein said rod seat ~~seating~~ ~~means~~ includes a body portion from which at least one said flexible portion extends therefrom.

7. (Currently Amended) The screw and rod fixation assembly according to claim 1, wherein said locking means is defined as a set screw including a threaded outer surface for ~~operatively~~ engaging said threaded inner surface of said fixing mechanism ~~means~~.

8. (Original) The screw and rod fixation assembly according to claim 7, wherein said set screw further includes a spherical, inner chamber for accommodating said at least one flexible portion when said at least one flexible portion is contoured around the rod situated therein.

9-31. (Cancelled).

32. (Previously Presented) A fixing mechanism for a rod fixation assembly comprising a tubular body having a gripping portion and a pair of arm portions extending from the gripping portion in a substantially parallel arrangement, the arm portions being separated from one another by an interior passageway extending along a portion of the tubular body, said passageway adapted to receive a rod securing fastener, the tubular body having an inner surface with inwardly-facing threads, the inwardly-facing threads being adapted to engage and axially advance a rod securing fastener that is inserted in the passageway, each arm portion comprising a thinned section adapted to break so as to separate at least a portion of the arm portion from the fixing mechanism.

33. (Previously Presented) The fixing mechanism of claim 32 wherein each thinned section is located on an edge of its respective arm portion to allow the entire arm portion to break off from the gripping portion.

34. (Previously Presented) The fixing mechanism of claim 32 wherein the passageway extends into the gripping portion.

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35. (Previously Presented) The fixing mechanism of claim 33 wherein the gripping portion has a spherical shaped interior that connects with the passageway.

36. (Previously Presented) The fixing mechanism of claim 32 wherein the inwardly-facing threads extend along the thinned sections of the arm portions.

37. (Previously Presented) The fixing mechanism of claim 36 wherein the inwardly-facing threads extend into the gripping portion.

38. (New) A rod fixation assembly for fixing a screw and a rod comprising:

a fixing mechanism having a substantially tubular body with an inner passageway and an inner wall surrounding the inner passageway;

a rod seat inserted into the inner passageway, the rod seat having a pair of flexible portions extending generally parallel to one another forming a U-shaped inner surface adapted for seating a rod between the flexible portions, the flexible portions being deflectable radially inwardly toward one another to compress against and around the exterior of a rod seated in the rod seat.

39. (New) The rod fixation assembly of claim 38 comprising a locking nut in cooperable engagement with the fixing mechanism, the locking nut being axially displaceable to engage the flexible portions of the rod seat and compress the flexible portions radially inwardly to compress the flexible portions against and around the exterior of a rod seated in the rod seat.

40. (New) The rod fixation assembly of claim 38, wherein each flexible portion comprises a tapered outer surface, the tapered outer surfaces on the flexible portions being operable to engage the inner wall of the fixing mechanism and deflect radially inwardly by interference with the inner wall so as to compress the flexible portions against and around the exterior of a rod seated in the rod seat.

41. (New) A fixing mechanism for a rod fixation assembly comprising a substantially tubular body having a gripping portion and a pair of arm portions extending from the gripping portion in a substantially parallel arrangement, the arm portions being separated from one another by an interior passageway extending along a portion of the tubular body, said passageway adapted to receive a rod securing fastener, the tubular body having an inner surface with inwardly-facing threads, the inwardly-facing threads being adapted to engage and

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axially advance a rod securing fastener that is inserted in the passageway, each arm portion being segmented into portions adapted to be snapped-off from the substantially tubular body.